### NATIONAL SUN YAT-SEN UNIVERSITY

# College of Engineering Institute of Communications Engineering Regulations of Doctoral Qualification and Degree Examination for Postgraduate Students

## Applicable to Students Starting in School Year 104

Approved by the 7<sup>th</sup> Institute General Meeting on May 20, 2008, School Year 96. Amended and approved by the 3<sup>rd</sup> College of Engineering General Meeting on June 10, 2008, School Year 96. Amended and approved by the 4<sup>th</sup> Joint Department and Institute General Meeting on November 14, 2008, School Year 97.

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- I. This set of regulations is issued based on the Ministry of the Education Degree Conferral Law and its enforcement rules, "Academic Regulations" of National Sun Yat-sen University (NSYSU), "NSYSU Enforcement Rules of Postgraduate Students Degree Examinations," and "NSYSU Regulations for Direct Pursuit to Doctoral Degree Programs of Students."
- II. Relevant items during studying periods:
  - A. Degree studying periods: Two to seven years in accordance with regulations of the Ministry of Education (periods of retainment of student status and suspensions not included).
  - B. Crediting and course criteria:
    - 1. All course selections by students shall be approved by supervisors and the institute director.
    - 2. After entry to a doctoral program and three month prior to the thesis oral examination within a study period, a student must complete the minimum required graduation credits in accordance with regulations of the institute. At most six credits of elective project courses may be included in the minimum graduation credits. A current master's student of the institute who has studied in a master's program for more than one year may apply for direct pursuit to a doctoral degree program; such student shall complete a minimum of 42 graduation credits (with a maximum of 21 credits being obtained during master's study; credits of seminar courses not included).
  - C. Selection and assignment of supervisors:
    - A postgraduate student shall select one full-time faculty member of the institute as his/her thesis supervisor. In cases of students having to change supervisors due to certain reasons, they may only do so once obtaining written agreements of the original and new supervisors. New supervisors

shall still be assumed by full-time faculty members of the institute. In cases of supervisors resigning or retiring, co-supervision shall be in place.

- D. For the purpose of strengthening language proficiency of doctoral students, students of the institute admitted in School Year 97 and after must meet one of the following English criteria as proof of English proficiency prior to applying for doctoral thesis examination:
  - 1. A TOEIC score of 700 or above, or an equivalent test/standard established by other language test organizations or the Ministry of Education. Please enclose credible documents of proof and authorize the institute director to make recognition.
  - 2. Completing at least 3 credits of a medium-high leveled English course established by NSYSU Department of Foreign Language and Literature during a doctoral studying period, or 3 credits of English technical writing courses offered by various departments/institute of the collage. A student shall obtain a minimum grade of 70 for any of the aforementioned courses.

### E. Others:

In cases of doctoral students needing faculty members from outside the institute to co-supervise, co-supervision shall be agreed by original supervisors and applications to the institute shall be made prior to submission of thesis proposals for review and approval by an institute general meeting.

# III. Doctoral candidate qualification examination:

Definition of semesters: The first semester starts on August 1 of each year and ends on January 31 of the next year; and the second semester starts on February 1 of each year and ends on July 31 of the same year.

### A. Qualification examination

A student shall pass the qualification examination within two semesters following entry to a program (periods of suspensions not included). Those who do not pass shall face expulsion. Possible examined courses include: 1) Semiconductor Physics and Device, 2) Control Systems, 3) Discrete Mathematics, 4) Electric Power Engineering, 5) Electromagnetic Waves, 6) Digital Logics, 7) Communication Theory, 8) Random Process, and 9) Digital Signal Processing. The aforementioned 1) to 6) subjects are examined courses of Group A to F of the Department of Electrical Engineering. A student of the institute shall select two courses of the nine mentioned above to be examined, of which one shall be selected as a compulsory examined course by the supervisor and the other chosen by the student.

The exams are written examinations held once at the end of each semester (examination dates shall be announced during mid-semester exams). A student may sit each exam twice at most and may change course when re-sitting an exam. Should a student fail both exams (nonattendance is regarded as fail), he/she shall face expulsion in accordance with NSYSU's regulations. Should a student fail one of the two exams, he/she is required to obtain an addition of 5 thesis points for graduation; the additional points are not limited to journal articles and points obtained previously may be accounted.

# B. Thesis proposal evaluation

1. Following passing the qualification examination and approval of the

- supervisor, a postgraduate student shall pass thesis proposal evaluation three months prior to thesis oral examination within the study period. The evaluation is an oral examination.
- 2. A thesis proposal evaluation committee shall comprise three to six members of faculty members academically ranked above assistant professors from in or outside the institute nominated by a supervisor and approved and appointed by the institute director.
- 3. A student who does not pass thesis proposal evaluation is required to re-submit for a second evaluation once the proposal has been revised and approved by his/her supervisor. A student who fails for the second time shall face expulsion in accordance with NSYSU's regulations.
- 4. A student who has passed thesis proposal evaluation and obtained doctoral candidate qualification prior to supervisor variation shall re-process doctoral thesis proposal evaluation after the supervisor variation is made.
- C. Relevant regulations of doctoral thesis publication
  - 1. Relevant regulations of doctoral thesis publication are as follows:
    - a) Required graduation points:
    - A minimum of 20 graduation points is required during study period of a doctoral program.
    - b) Points for graded theses:
      - i. Articles in IEEE journals: 15 points are awarded to each long article; 10 points are awarded to each short article.
      - ii. Articles in non-IEEE journals: Articles on SCIE journals are categorized into A, B, and C grades according to their JCR Impact Factor ranking. Grade A articles are those ranked in the top 50% and 10 points are awarded to each. Grade B articles are those ranked in the top 75% but not in the top 50% and 7.5 points are awarded to each. Grade C articles are those ranked after the top 75% and 5 points are awarded to each.
      - iii. 5 points are awarded to each of other articles and international conference theses. At most one of the articles may be accounted for graduation points.
    - c) The aforementioned point regulations are applicable to students of the system groups. Students of the EM-wave group shall refer to the Department of Electrical Engineering's "Regulations of Doctoral Graduation Points for EM-Wave Group."
  - 2. Research outcomes obtained prior to entering the doctoral program or research outcomes published during a doctoral study period but are irrelevant to respective specialty of a student shall not be accounted.
  - 3. Awards of points for postgraduate students' publications shall comply with the following regulations:
    - a) The institute shall be the only listed unit when a student specifies his/her respective department. Should a student simultaneously lists other units, the respective article will not be accounted for graduation

- thesis points.
- b) An article with a lead unit other than the institute will not be accounted for graduation thesis points.
- c) Each article may only be referenced for one student, who shall be the lead author among all student authors; and the student's supervisor shall be the lead author among all non-student authors of the article.
- 4. Should a student change his/her supervisor, articles published by the student and his/her original supervisor will not be accounted for graduation points unless agreed by the original supervisor in writing. In cases of other disputes, the institute director shall act to coordinate or convene an academic affairs committee for decision making.
- 5. Jointly appointed or retiring professors may proceed with procedures described above. Orders of listed author names of retiring and jointly appointed professors on articles shall be coordinated according to actual supervision circumstances.
- 6. The aforementioned requirements are the minimum graduation criteria.

# D. Doctoral degree examination

- 1. A postgraduate student may apply for and participate in a doctoral degree examination by the NSYSU-specified degree examination application deadline once he/she has passed the doctoral candidate qualification examination, met the requirements of thesis publication, and been approved by his/her supervisor.
- 2. Doctoral candidate degree examination committee members shall be nominated by a supervisor in accordance with "NSYSU Enforcement Rules for Degree Examination of Postgraduate Students" and approved by the institute director, who then forwards the nominees to the president for approval and appointment.
- 3. A student who fail the degree examination and has not yet completed his/her study period may re-sit the exam in the next semester or school year. A student may only re-sit the exam once. Students who fail re-sits shall face expulsion in accordance with NSYSU's regulations.
- IV. Graduation: Students who meet all criteria described above may apply for degree conferral.
- V. The present regulations shall be implemented following approvals of Department of Electrical Engineering and Institute of Communications Engineering joint general meetings and college general meetings, as well as the authorization of the president. The same procedure shall be carried out when amendments are to be made.